

CLAIMS

What is claimed is:

1. A file transformation system, comprising:
 - at least one file associated with one or more unstructured properties; and
 - a file property handler to manipulate the unstructured properties in accordance with one or more structured properties associated with a structured object environment.
2. The system of claim 1, the file property handler performs at least one of an extraction and a transformation in order to promote the unstructured properties to the structured properties.
3. The system of claim 1, the file property handler performs at least one of an extraction and a transformation in order to demote the structured properties to the unstructured properties.
4. The system of claim 1, further comprising a file property manager to facilitate communications between applications working with unstructured property stream/file and applications working with a structured object representation of a file.
5. The system of claim 1, the file property handler facilitates a promotion operation when a file API based application) modifies properties by updating a file stream for a structured object store item.
6. The system of claim 5, the structured object store item is a file-backed item.
7. The system of claim 1, the file property handler facilitates a demotion operation when an application queries for and modifies items employing a structured store Application Programming Interface (API) that manipulates the file-backed item.

8. The system of claim 1, the file property handler is registered to process one or more selected file extensions.
9. The system of claim 4, the file property manager on receiving a notification of the unstructured byte stream representation of the file having been modified calls a file property handler for it with a pointer to the byte stream of the file to be promoted.
10. The system of claim 1, the file property handler is associated with an abstract class that defines methods for promotion and demotion.
11. The system of claim 10, the abstract class includes at least one of a BaseFilePropertyHandler, a promote method, a demote method, a first promote method, a store serialized item method, and a retrieve serialized item method.
12. The system of claim 1, further comprising an application programming interface (API) that allows applications to modify a file-backed item.
13. A computer readable medium having computer readable instructions stored thereon for implementing the file property handler of claim 1.
14. A system to facilitate data transformation, comprising:
 - means for exposing unstructured file properties to a structured store application;
 - means for transforming the unstructured file properties into structured item properties associated with the structured store application; and
 - means for updating the structured item properties in the structured store application.
15. The system of claim 14, further comprising means for transforming the structured item properties into unstructured file properties.

16. A method to facilitate data item migration, comprising:
modifying an item in a structured store namespace from a file API based application; and
promoting one or more properties associated with the item to be in accordance with properties associated with the structured store namespace.
17. The method of claim 16, further comprising demoting one or more properties associated with the item to be in accordance with the file API based application.
18. The method of claim 16, further comprising registering a file property handler to facilitate promoting or demoting the one or more properties.
19. The method of claim 16, further comprising de-queuing a change item.
20. The method of claim 16, further comprising retrieving a structured item for a selected item path.
21. The method of claim 16, further comprising morphing an item's type/structure or changing an item type/structure.
22. The method of claim 16, further comprising automatically extracting properties and updating an item.
23. The method of claim 16, further comprising marking modified parts of an item as promoted.
24. The method of claim 16, further comprising applying changes to the item to the structured object store.

25. The method of claim 17, further comprising determining the item for updates to parts of the item.
26. The method of claim 17, further comprising querying an item store for a file property handler registration.
27. The method of claim 26, further comprising loading the file property handler into a cache.
28. The method of claim 17, further comprising automatically identifying fields to be updated.
29. The method of claim 17, further comprising reading changes from an item and updating file properties.
30. The method of claim 29, further comprising at least one of sending the item changes to the store and closing a stream.
31. A computer readable medium having a data structure stored thereon, comprising:
 - a first data field related to an unstructured property associated with file data;
 - a second data field related to a structured property associated with structured object (item) data; and
 - a third data field that is employed to correlate the unstructured property data with the structured property data.